

Fig. 1: Schematic cross-section of microseismometer

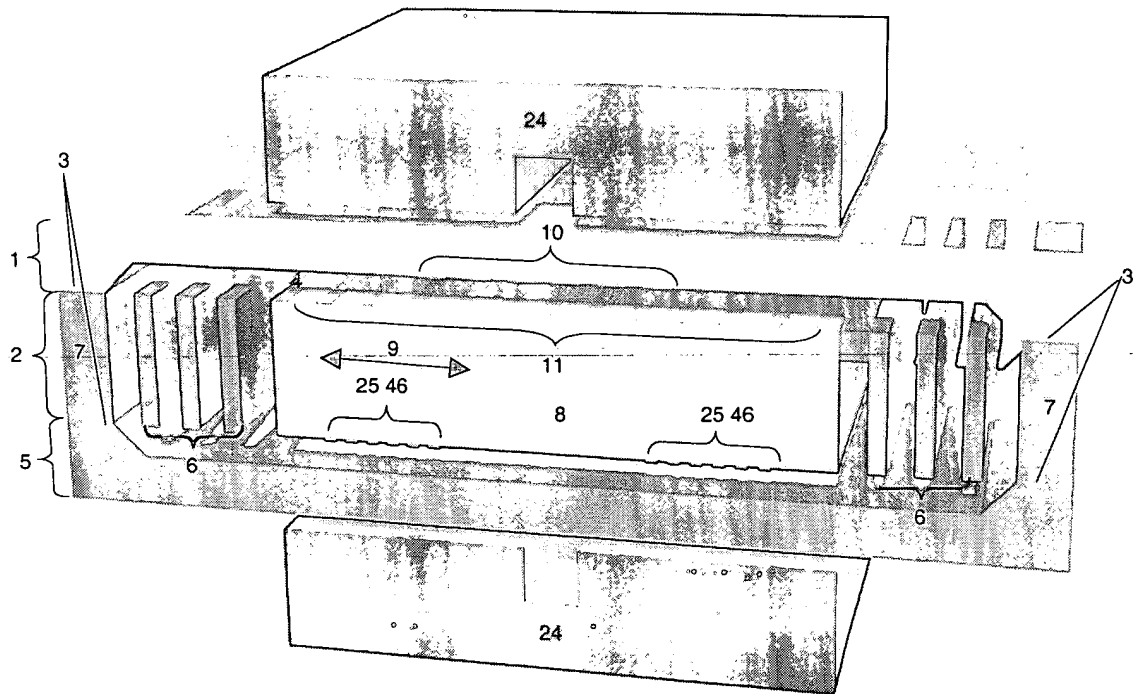
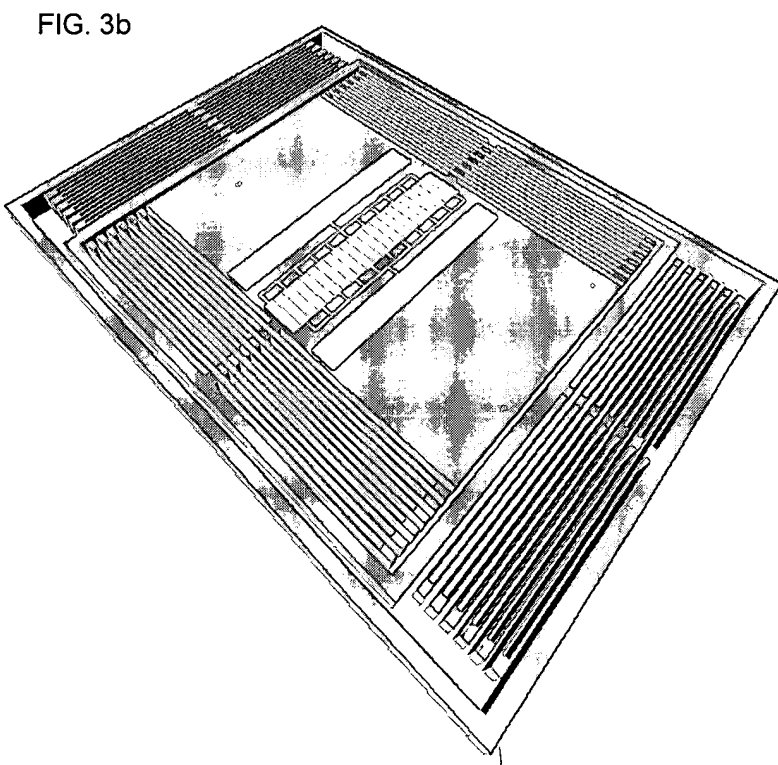
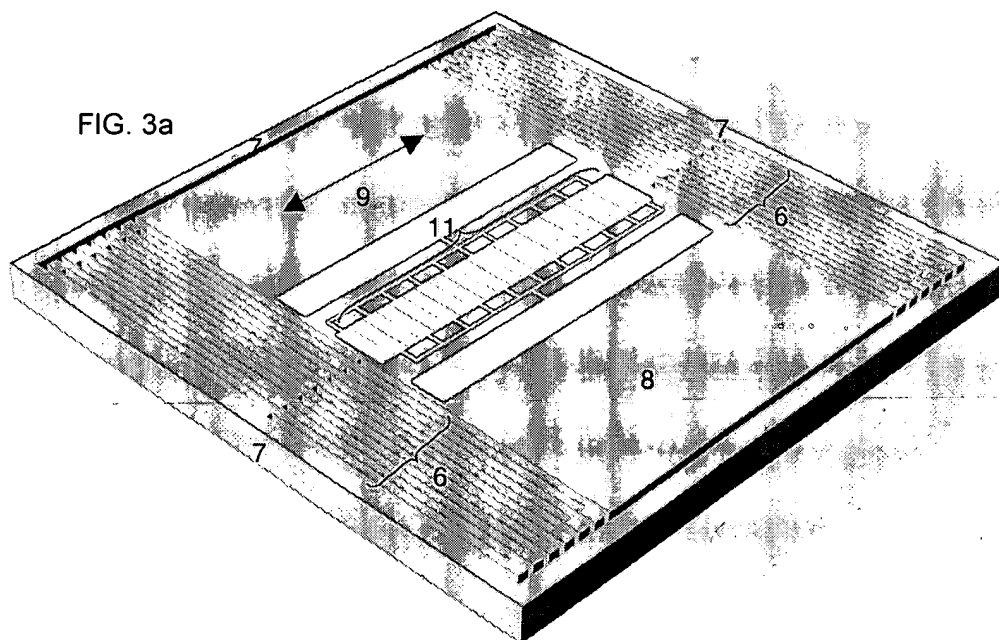


Fig. 2: 3-D View of microseismometer



Figures 3a and 3b: 3-D view of suspension plate for (FIG. 3a) single-axis transducers and (FIG. 3b) dual-axis transducers

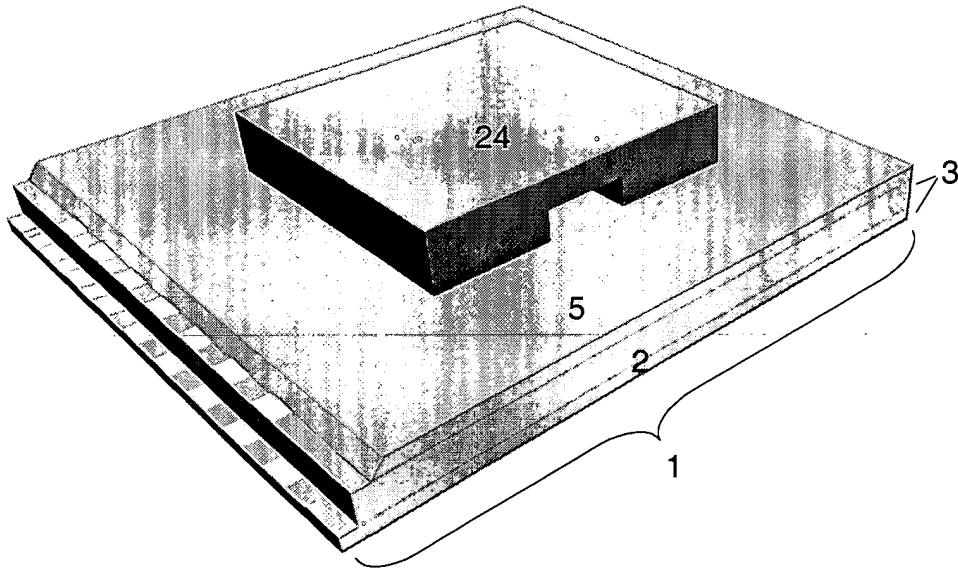


FIG. 4: Wafer stack with magnet, shown inverted compared to other figures.

FIG. 5a

FIG. 5b

Timing diagram for the 74VHC04 inverter. The diagram shows four waveforms over time:

- 12 (5V)**: A square wave representing the input voltage.
- DRIVE**: A square wave that is high when 12 is low and low when 12 is high.
- 13**: A square wave that is high when 12 is high and low when 12 is low.
- +OUTPUT**: A square wave that is high when 13 is high and low when 13 is low.
- OUTPUT**: A square wave that is high when 13 is low and low when 13 is high.

The time axis is labeled "time" with an arrow pointing right.

FIG. 5c

Figures 5a, 5b, 5c and 5d: Electronics schematic

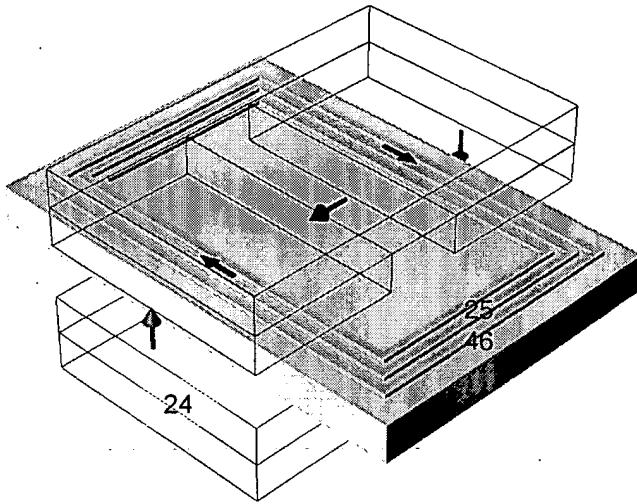


FIG. 6: Magnetic circuit

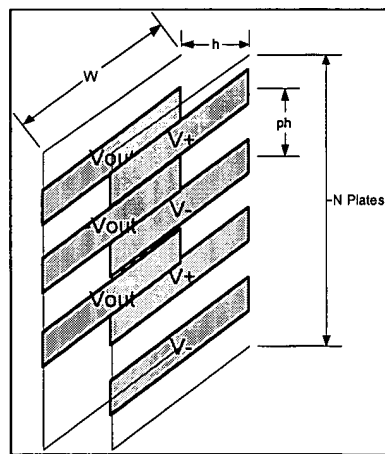


FIG. 10

FIG. 7a

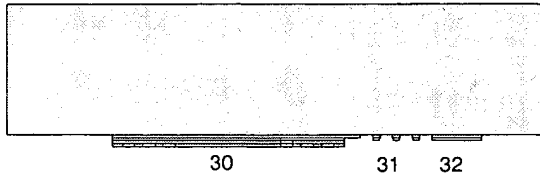


FIG. 7b



FIG. 7c

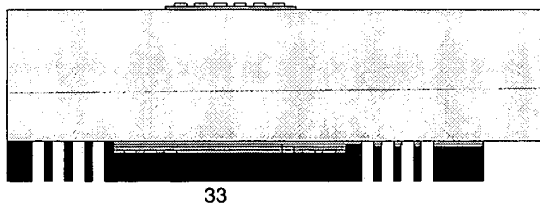


FIG. 7d

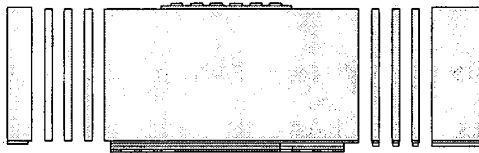


FIG. 7e

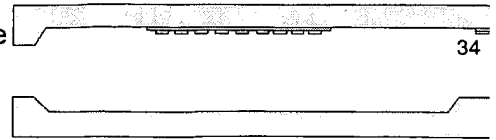


FIG. 7f

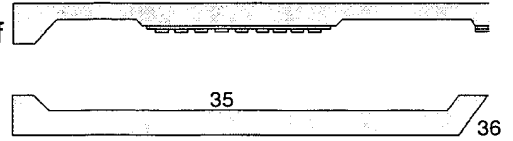
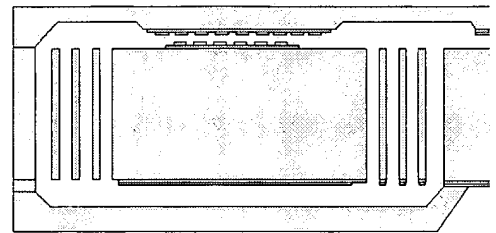


FIG. 7g



Figures 7a, 7b, 7c, 7d, 7e, 7f and 7g: Fabrication

FIG. 8a **ACCELEROMETER FEEDBACK ELECTRONICS
FOR ELECTROSTATIC ACTUATOR**

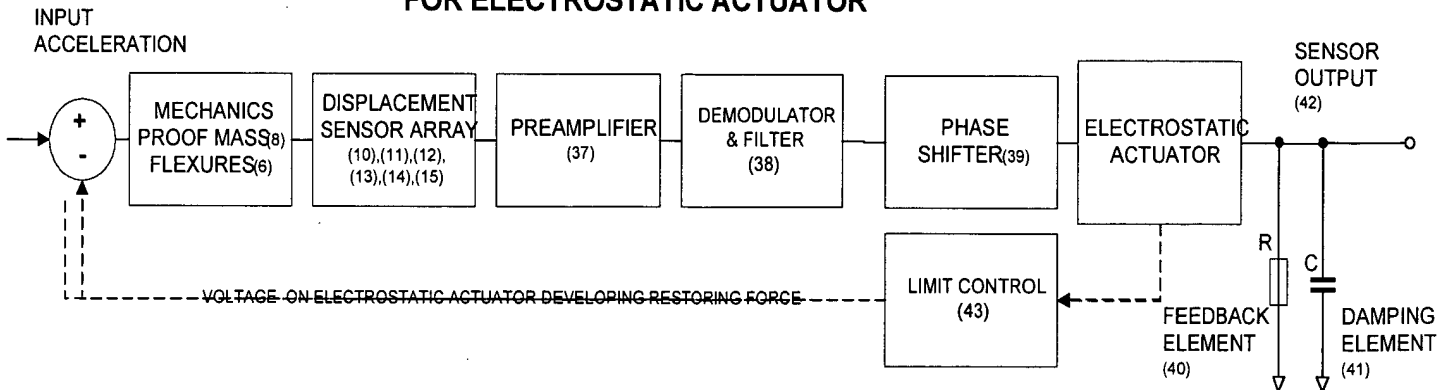


FIG. 8b **ACCELEROMETER FEEDBACK ELECTRONICS
FOR MAGNETIC ACTUATOR**

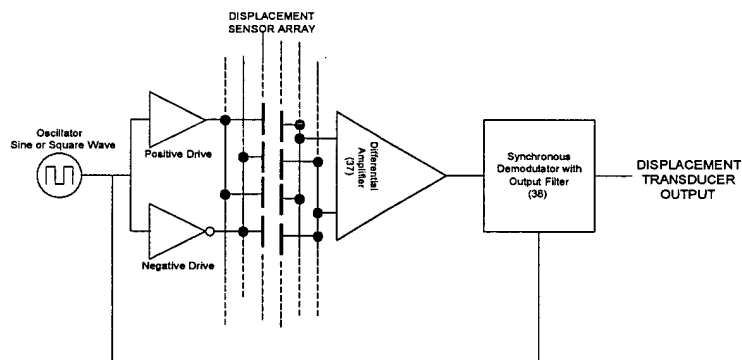
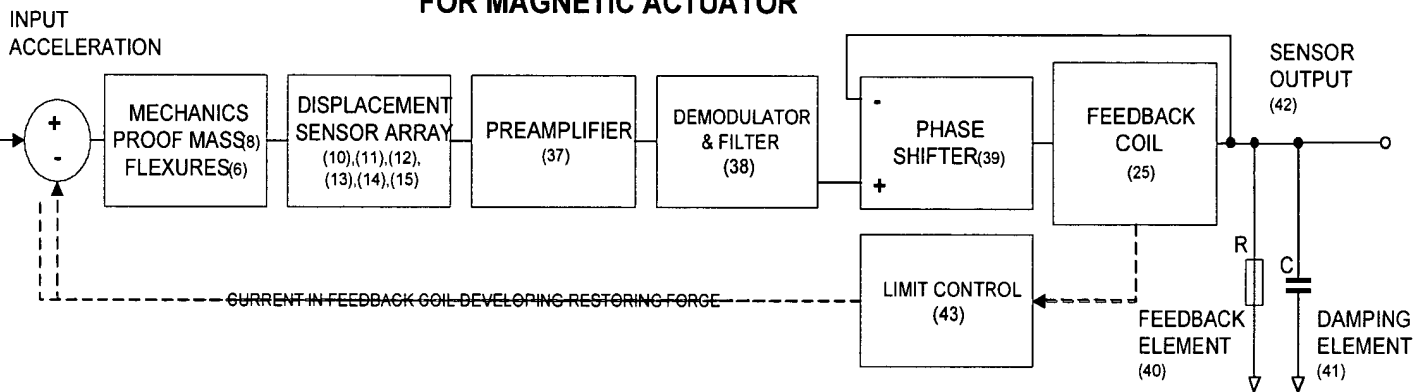


FIG. 8c **DISPLACEMENT TRANSDUCER**

Figures 8a, 8b and 8c: Accelerometer Feedback Circuits

FIG. 9: Seismometer Feedback Electronics

